

Self-Assessment Report for Fiscal Year 2003

Overview

Overview

This report summarizes the Ernest Orlando Lawrence Berkeley National Laboratory internal assessment of Laboratory operational and administrative performance in key support functions for Fiscal Year (FY) 2003. The report provides documentation of ongoing performance-based management and oversight processes required by the Department of Energy (DOE) to monitor, measure, and evaluate Berkeley Lab work.

Purpose and Scope of Annual Performance Review

Berkeley Lab is a multiprogram national research facility operated by the University of California (UC) for the Department of Energy (DOE). As an integral element of DOE's national laboratory system, Berkeley Lab supports DOE's missions in fundamental science, energy resources, environmental quality, and national security. Berkeley Lab programs advance four distinct goals for DOE and the nation:

- To perform leading multidisciplinary research in the computing sciences, physical sciences, energy sciences, biosciences, and general sciences in a manner that ensures employee and public safety, and protection of the environment.
- To develop and operate unique national experimental facilities for qualified investigators.
- To educate and train future generations of scientists and engineers to promote national science and education goals.
- To transfer knowledge and technological innovations and to foster productive relationships among Berkeley Lab's research programs, universities, and industry in order to promote the nation's economy and security.

The Laboratory's programmatic performance is aligned with its principal roles for DOE in research on fundamental science topics, including developing powerful experimental and computational systems for exploring properties of matter, promoting improved understanding of molecular interactions and synthesis, and gaining insight into biological molecules, cells, and tissues. Berkeley Lab performance also reflects its major contributing role in research on energy resources, including the Earth's structure and energy reservoirs, fusion, combustion of fuels, and keys to efficient energy storage and use. The Laboratory's performance also incorporates its extensive involvement in environmental research, including subsurface contaminant transport, bioremediation, and indoor air quality. Our multidisciplinary research environment and unique location serve to strengthen partnerships with universities, industry, and government laboratories. Partnerships include the Joint Genome Institute and programs in advanced accelerator and detector systems, x-ray lithography, high-speed networking and computer architectures, efficient building and lighting systems, and science education.

All work at Berkeley Lab is managed under a DOE performance-based contract (Contract No. DE-AC03-76SF00098), which is available at <http://labs.ucop.edu/internet/comix>. Clause 2.6 and Appendix F of this contract describe in detail the structural elements, implementing processes, governing procedures, and reporting requirements of this federal contractor management system. The system is structured around two main subsystems for contractor appraisal:

- Science and Technology programs
- Operational and Administrative support

Evaluation of Science and Technology Programs

Internationally renowned scientists and engineers examine Berkeley Lab's performance in the arena of science and technology through peer reviews of the Laboratory's scientific programs. The criteria employed for these reviews include the quality of science, its relevance to national needs and agency missions, performance in the development and operation of major research facilities, and programmatic performance and planning. The results of these peer reviews, together with expert reviews done annually by DOE's principal project managers and sponsoring offices, are summarized in an appraisal report that rates Laboratory science and technology performance for FY 2003.

Evaluation of Operations and Administration

An institutional commitment to mission leadership and optimally managed facilities, resources, and services is fundamental to the Laboratory's approach to operational and administrative functions. Adherence to these principles in the management of all supporting systems, services, resources, and capabilities is shown in the performance criteria and evaluation metrics used to assess the operations and administration areas within this report.

The operational and administrative support functions are organized into eight areas:

- Laboratory Management
- Environment, Safety, and Health
- Financial Management
- Human Resources
- Information Technology Infrastructure
- Procurement
- Project/Facilities and Construction Management
- Property Management

Consistent with DOE contractual directions, performance criteria and associated metrics are developed annually by teams composed of key managers and staff of DOE and UC for each area. Through this partnership process, a comprehensive set of performance metrics is designed to guide and gauge Laboratory performance. Throughout the year, Berkeley Lab managers for each function compile the needed data and, if appropriate, periodically inform DOE counterparts of performance indicators. For the entire year, these managers report cumulative data and self-assess their performance with respect to each metric. Finally, both the data and the self-assessment are independently validated before being included in this report.

FY-2003 Performance Review Summary

Berkeley Lab conducted a comprehensive assessment of its performance in all science and support areas for the fiscal year. The science and technology assessment was reported in a separate document submitted to DOE in August 2003. The FY-2003 operational and administrative performance self-assessment is summarized in this report; selected highlights for FY 2003 at Berkeley Lab follow.

Laboratory Management

Working closely with the leadership of the Office of Science, the Laboratory Director articulated a 20-Year Vision on the future of Berkeley Lab. Berkeley Lab and Office of Science managers addressed opportunities and issues, which included progress on science goals and programs, upgrading of infrastructure and business systems, and appropriate improved security systems. The Laboratory made progress on key infrastructure stewardship issues: new Laboratory buildings, utilities improvements, and deconstruction of decommissioned accelerators.

The Laboratory Director established a Best Practices Diversity Council for strengthening and institutionalizing the best efforts among divisions, and to more broadly disseminate these successful efforts across the Laboratory.

Berkeley Lab's community relations gained new levels of support from local governments. A new Friends of Science program continued to grow. Laboratory representatives continued active participation and partnering with city officials and other stakeholders. The Laboratory's Open house hosted an unprecedented 8,000 visitors.

During FY 2003, it became apparent that prior Laboratory initiatives designed to streamline business processes and to make business practices more cost-efficient resulted in inadequate internal controls of some key Laboratory business activities. The Laboratory initiated several internal audits and process reviews as part of continuing efforts to tighten up business practices and reduce risks in these areas. As a result, several changes have been instituted, including: (1) an improved procurement card system was implemented; (2) property cost accounting and custodial accountability has been strengthened; and (3) better administrative and oversight requirements for subcontractor management were implemented.

Environment, Safety, and Health

Laboratory work in these areas continued to excel, with these notable radiological safety highlights:

- No individual had radiation exposures over 500 mrem.
- There were no unplanned radiation exposures at the Laboratory.
- No radioactive material was found outside of controlled areas.

Financial Management

Financial support services continued an overall excellent performance during a time of many changes. However, two significant erroneous activities in earlier years came to light in FY 2003 (improper ESnet payments and improper capital asset administration) that required major corrective actions and some strengthening of Financial Management systems.

Human Resources

Human Resources (HR) at LBNL is going through a period of significant change, with these noteworthy examples:

- HR is on schedule in rolling out an entirely new set of guidelines, based on national standards.
- HR began instituting a flexible-work-option program.

Information Technology Infrastructure

- The Help Desk continues to sustain a high level of customer satisfaction and service in all areas.
- In a new measure for cyber security, Protected Computer Environment, the Berkeley Lab Computer Protection Program (CPP) met the standard for an Outstanding performance rating.

Procurement

Procurement functions met or exceeded all expectations established under the contract. Nevertheless, responding to a DOE Chief Financial Officer/Headquarters review of Berkeley Lab's procurement card activities, the Laboratory overhauled the LBNL purchase card program, so that the procurement card system now addresses all the issues raised by DOE.

Project/Facilities and Construction Management

Overall work in this functional area continued to be outstanding, with these specific high points in Laboratory site operations:

- Electrical reliability continued at better than 99.9998%.
- The Laboratory continued to surpass its energy conservation criteria.
- Unplanned customer utility outages dropped from 15,810 to 265.

Property Management

Property Management successfully continued to operate and meet its overall work criteria. But property practices and administrative criteria were tightened in reaction to the findings of several recent external audits and to the conclusions of the internal review of capital asset administration.